



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/082,558

02/25/2002

Kevin Scott Smith

UNCC#2001-001/46872.26008

3190

7590

03/13/2006

John C. Alemanni
Kilpatrick Stockton LLP
1001 West Fourth Street
Winston-Salem, NC 27101-2410

EXAMINER

RAO, SHEELA S

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/082,558	Applicant(s) SMITH ET AL.	
	Examiner Sheela Rao	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission of a Request for Continued Examination with amendments and remarks filed on 23 December 2005 has been entered and considered.
2. Claims 1-20 are pending and presented for examination. Claim 1 has been amended.

Response to Amendment

3. The rejection of claims 1 and 2 under 35 USC §112, 2nd paragraph, as being indefinite is **withdrawn** in light of the amendments made and explanation given.
4. The rejection of claims 6, 7, 9, 11, 12, 18, and 19 under 35 USC §112, 2nd paragraph, as being indefinite is **maintained** and has been restated below.
5. The rejection of claims 1-15 and 18-20 under 35 USC §101 for lacking utility is **withdrawn**.
6. The rejection of claims 1-5 and 9-20 under 35 USC §102(e) as being anticipated by Thackston in USPN 6,295,513 is **maintained** and has been restated below.
7. The rejection of claims 6-8 under 35 USC §103(a) as being unpatentable over Thackston in USPN 6,295,513 is **maintained** and has been restated below.
8. The rejection of claims 1-20 under 35 USC §103(a) as being unpatentable over Thackston in USPN 6,295,513 in view of Kakazu in USPN 5,388,199 is **maintained** and has been restated below.

Claim Rejections – 35 USC § 112

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 2 of the instant invention claims a method of producing a part, wherein "identifying said vendor comprises creating said vendor." The step of "creating a vendor" does not provide sufficient detail to enable one of ordinary skill to make or reproduce the step without undue experimentation. Applicant's disclosure does not provide any functioning example for skilled artisans to reproduce the claimed limitation. A suggestion of how a party "may create a vendor" does not enable one skilled in the art to reasonably establish what may be constituted as being within the metes and bounds of the claimed invention. Furthermore, a vendor is not an entity that can be physically made or formed; thus the step of creating a vendor lacks proper enablement.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 6, 7, 9, 11, 12, 18, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6, 7, 9, 11, and 12 – all use the term "effective" as a term of degree in establishing a combination of machines and tools. When a term of degree is used as a limitation, it is necessary to determine whether the specification provides some standard for measuring that degree. See *Seattle Box Company, Inc. V. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). In this case, the specification does not enable one skilled in the art to reasonably establish what may be construed as being within the metes and bounds of the word of degree. Therefore, one of ordinary skill in the art would not be appraised as to the claimed invention's scope when the claims are read in light of the specification. See *Ex parte Oetiker*, 23 USPQ2d 1641.

Claims 18 and 19 – cite the limitation of "said executing said recipe" which lacks antecedence,

claim 18 depends from claim 1 and claim 19 from claim 7; neither claims 1 or 7 assert the execution of a recipe.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claim 2 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 2 claims a method of producing a part, wherein "identifying said vendor comprises creating said vendor." This limitation has no concrete and/or tangible result. The instant limitation does have utility but is directed to an abstract concept. The suggestion of equipment needed for manufacturing a part in accordance with a recipe or creating a vendor by a vendor-creation process is not a concrete or even tangible result. One of ordinary skill would not know how to create a vendor since a vendor is either in existence or not or available or not. Furthermore, the mere suggestion of use of any equipment does not constitute the creation or formation of a vendor. The creation of a vendor is an abstract concept without any tangible result.

Claim Rejections - 35 USC § 102

15. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

16. Claims 1-5 and 9-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Thackston, US Patent No. 6,295,513.

The invention by Thackston relates to a computer-based system and method for the design and development of an idea in a virtual collaborative environment. In doing so, the steps of defining product

specifications, system specifications, identifying qualified fabricators for manufacturing the part design, and accepting bids from qualified manufacturers are followed.

As per the limitations of the instant invention, with reference to Figure 16 the patented disclosure provides an overview of the method used in undertaking the design and development of a project. See Figures 16A and 16B along with the description given beginning at column 27: line 58.

To be more specific, the reference of prior art teaches the "specifying a requirement for a part to be produced", as in claim 1 of the instant invention, in the design and development phase referred to as NICECAD, see column 8: line 58, et seq. in relation to Figure 2, and column 13: ll. 43-67. The limitations directed to "generating a recipe for production of [the] part conforming to said requirement", as per claims 1, 5, 9, and 10 of the instant invention, is taught by the Thackston reference with the use of a Product Data Manager (PDM) which stores data for individual projects. The stored data includes technical data, contractual information, as well as budget and schedule information. The PDM is a part of the NICECAD development and design phase. See column 14: ll. 6-30 and Figure 8. As per the limitations of "identifying a vendor capable of producing said part ..." (instant claims 1-3, and 11-14), the NICECAD system comprises a Global Manufacturer's Registry (GMR) which is used for the identification and evaluation of qualified/certified fabricators or manufacturers for a design. See column 5: ll. 30-54. In addition to the vendor data being stored in the database (instant claim 13), standards and specifications with regard to the manufacturing, inspection and fabrication (instant claim 20) are also included. See column 16: ll. 34-67. The aspect of monitoring the manufacturing/production of the part using some type of communication (as in instant claims 4 and 15-17) is taught by the "check-in/check-out module" of the NICECAD system as detailed in column 14: line 42, et seq.

Furthermore, the NICECAD system and method consists of an Electronic Trading Community (ETC) that manages the negotiations of vendors bidding to manufacture the parts/products (as in instant claims 18 and 19). See column 5: line 55, et seq.

Claim Rejections - 35 USC § 103

17. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

18. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Thackston, US Patent No. 6,295,513.

Thackston teaches the limitations of the instant invention as applied to claims 1-5 as stated above. However, the disclosure of the invention by Thackston fails to teach or fairly suggest the particular use of a plurality of machines and one tool to produce a part, or one machine and a plurality of tools to produce a part, or a plurality of machines and a plurality of tools to produce one part, or any combination thereof. Although, the NICECAD system and method of the patented invention does include several databases which contain information about a variety of aspects of the manufacturing/production system, the use of "plural" machines/tools in any combination has not been specifically detailed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a machine/tool selection component within the NICECAD system to have a selection/designation segment for identifying the number of machines or tools used to produce a part. The use of a plurality of devices would allow for greater efficiency and more economic gain; which would in turn benefit all parties.

19. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thackston, US Patent No. 6,295,513 B1 in view of Kakazu et al., US Patent No. 5,388,199.

The limitations of the claimed invention as taught by Thackston are stated above.

With regard to the newly added limitation of claim 1 wherein the identification of an optimal machine and tooling combination for producing a part is claimed, Thackston teaches the selection of fabricators for manufacturing part design through the identification of qualified fabricators based on information stored in a global database, see abstract and col. 5: ll. 30-54. However, Thackston does not specifically disclose the identifying of an "optimal" combination, for this reason the patented invention to Kakazu et al. (hereinafter, "Kakazu") is relied upon. Kakazu discloses a machine tool determining module that chooses the optimal machine tool from a machine tool registry or master file. Furthermore, the module has the

capability to select machines out of the file based on the data of the workpiece. See col. 9: ll.58, et seq. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the machine tool module comprising a master file as used by Kakazu for determining optimal machines and tools in the computer-based design and development system as taught by Thackston for the benefit of a more efficient and functional production of a part.

20. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,388,199 by Kakazu et al. in view of US Patent No. 6,295,513 B1 by Thackston.

The patented invention by Kakazu et al. (hereinafter, "Kakazu") discloses an interactive system to express component elements of a solid model. In doing so, the disclosure teaches the limitations of the instant invention with reference to Figure 17. With regard to the claimed limitations, the specifying requirement for the part to be produced as per claim 1 is taught at lines 17-59 of column 9; wherein, the system control module and the shape definition module are explained. With regard to the aspect of generating a recipe for production of the part (as claimed in claims 1, 5, 9, and 10), Kakazu explains this limitation as completed by the machining method determination module, the machining sequence determining module, the tool/tool holder determining module, and the tool path generation module in column 10, beginning at line 16. As per the identifying of the combination of optimal machines and tools (instant claims 1, 6-8, and 15), the reference of prior art teaches this starting at line 58 of column 9 where the machine tool determining module chooses the optimal machine and tool from the machine tool master file.

The identifying of a vendor that is capable of producing the part as per instant claims 1-3, 11-14, and 18-20, Kakazu does not specifically address this limitation. For this reason, the prior art by Thackston, as described heretofore, is relied upon. The patented invention by Thackston uses the NICECAD system which comprises a Global Manufacturer's Registry (GMR) that is used for the identification and evaluation of qualified/certified fabricators or manufacturers for a design. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the

system/method of Kakazu to include the fabricator bidding system of Thackston so as to save costs and increase efficiency by engaging the most apt/low cost bidder to undertake the part production.

Applicant is reminded that the inventive concept of the instant invention lacks nexus with the limitations of the independent claim. The selection of a vendor is not dependent upon the generation of a recipe or the identification of an optimal machine and tool combination. The claims only require that the optimal machine and tooling combination used will produce the part according to the generated production recipe. This has no bearing on the selection of a vendor, other than that the vendor should use the production recipe to produce the part.

With regard to instant claims 1, 4, 16, and 17 wherein the monitoring of the manufacturing is claimed; again, Kakazu does not specifically teach the process of monitoring. However, Thackston teaches monitoring the manufacturing/production of the part using communication means with the "check-in/check-out module" as described in column 14:line 42, et seq. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the monitoring feature of Thackston with the invention by Kakazu so as to ensure production and proper processing. The use of computer and communication networks allows for versatility in monitoring methods. In general, the monitoring of the manufacturing enables the system to be more efficient and effective.

For the reasons stated above, the limitations of the claimed invention is taught by the prior arts of record; thereby, rendering the instant claims unpatentable.

Response to Arguments

21. Applicant's arguments filed December 23, 2005 have been fully considered but they are not persuasive as aforementioned.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (571) 272-3751. The examiner can normally be reached Monday - Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. The fax number for the organization where this application or any proceeding papers is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. It should be noted that status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should any questions arise regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sheela S. Rao
March 2, 2006

Jayprakash N. Gandhi
Primary Examiner 2160
Technology Center 2800

